CHAPTER - VI

SUMMARY
### CHAPTER VI - SUMMARY

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CHAPTER VI

SUMMARY

6.1. INTRODUCTION:

A research finding converts the information into knowledge. It should also incorporate suggestions to convert knowledge into competency and the application technique consistent with the competency so that the research finding percolates to the national life.

Keeping this in view, first the research process is summarised starting from the evolution of technical education and its development. Then going through Polytechnic Problems and the need for quality management and leadership of principals, a review of literature, conceptual analysis and tool development are briefed. Then the methodology and the statistical tool are given with the scheme of data analysis, followed by the findings, their educational implications and suggestions for further researches with conclusion.

6.2. Education :- Technical Sphere :

In the history of human life the period of renaissance in Europe changed the life style of the complete world. The industrial revolution followed it demanding technically skilled people. This brought in a drastic change in the curriculum of education developing new scientific and technical disciplines. With the advent of time the technical education had developed into a new educational sphere completely detaching it from other literature and human sciences.
6.3. Status of Technical Education in India:

In India the requirement of Technical personnel for all types of industries is met by technical institutions in three levels. A large number of technical personnel come out every year from these institutions in the forms of:

1. Degree holder Engineers from Colleges
2. Diploma Engineers from Polytechnics
3. Certificate level skilled craftsmen from ITI’s.

6.4. Polytechnics: A Diploma level Institution for Technician:

In India, technician level education and training is being imparted by Polytechnics. The term diploma holder is more common. Diploma Engineers usually work in Industry as technicians at supervisory level. They are quite important to the industry on account of their acting as link between the top managers and workers. Performance of a plant and its productivity depend on supervisor is efficiency.

6.5 Problems faced by Polytechnics:

Rapid industrialization and consequent adoption of modern processes and practices by Indian employers and society expected from the products of Polytechnics, the possession of specific knowledge, skills and the ability to apply such knowledge and skills to new situations and to learn new skills and to become responsible for the changing needs.
Whereas the pass-outs from Polytechnics were generally found to lack in regard to the ability:

1. To identify quickly the cause of troubles in mechanical equipments under his charge.
2. To understand basic principles or theory governing the working of a machine or apparatus and apply that knowledge for striking solution for problems encountered.
3. To provide efficient leadership.

6.6 EDUCATIONAL INSTITUTIONS NEED TQM CULTURE:

In educational institutions, the modern technological advancement particularly the advancement in Telecommunication, space and satellite technologies and computer made the educational process very complex demanding changes in educational technology and in the technology of education.

Further the privatization of education and the non-availability of grant-in-aid or support from government made the educational institution management incorporate the financial management and human resource management components within it. Also the modern day educational infrastructure requirements necessitated material management and purchase management technique for the education management.

Also the global village environment had produced high competitiveness demanding a high quality in every aspect. This put an onerous task on educational institutions to make its pass-outs to have effective skills and competencies to meet the high quality demand of perspective users.
But the quality maintenance on institutional pass-out had become more difficult as the liberalization and globalization policy made the educational environment very volatile. There was a high mobility of technology and culture producing quick changes. Also the monstrous aspect of the information technology threatened the very core of Indian value system.

Therefore there was an urgent need for educational institutions to develop a sophisticated response to this new changing environment. Otherwise the people for whom the institutes were created to provide services would have allowed it to make ultimate failure or collapse for failing or deteriorating institutions.

In this context the educational institutions were to set an example in propagating quality consciousness, team work, optimization of resources and managing the competitive environment encouraging team spirit among all concerned. Also institutions were to make conscious efforts to plan for products of high quality to be sent out of their portals.

This was where the TQM assumed great significance in educational institutions as this technique had special features suitable for educational institutions. They are:

1. It is holistic - it permeates every aspect of organisation, every process and every relationship, offering integration and coherence that are lacking in most other models.
2. It is value driven - TQM places fundamental significance on values and purposes, introducing moral imperative into management that is necessary in education systems.
3. It is about managing the interpersonal components of the organisation and equally acknowledges the interdependence between an organisation and its environment.
TQM opens the lines of Communication within Schools and with their external audience – namely Parents and the Community – and exalts the students as 'Customer' rather than product.

The root causes or failures in Schools could be obscure and seem ridiculously insignificant to outside observers and even to those inside the School setting; so insignificant that if not identified via TQM principles, the problem could continue to go unaddressed, silently undermining the quality of the product and 'customer' satisfaction – and the problems would have little to do with the learning capacity or intelligence of any given student, but might be very much to do with social or environmental factors affecting the students' ability to learn and the teacher's ability to teach.

6.7 LEADERSHIP - THE FOUNDATION OF TQM:

Leadership of the management is the foundation of TQM in any organization, since it directly influences the work culture, planning, communication and accountability in the organization. Leadership in the context of TQM is drawing vision. It has the following main components.

1. **Vision** - the shared vision of the organisation. Leader's responsibility is to derive organisation's shared vision and communicate it clearly to all.

2. **Empowerment** - leader has to delegate his powers and develop potential of individuals allowing them to grow. Trust must be the basis for influencing and decision making. Teams must be empowered with work as decision centres.

3. **Managing change** - creation of learning organisation where continuous process improvement occurs. Integration of personal development to organisation development by enhancing personal capacity.
6.8 PRINCIPALSHIP - A LEADERSHIP SUBSTITUTE:

The Principal is the pivotal person in a School or College. He/She is the administrator, academic leader and friend, philosopher and guide of the Institution’s community comprising teachers, students, non-teaching staff, parents and the society at large. He makes or mars it. In fact, an educational institutions is what its principal makes it to be.

The U.S. National Commission for Principalship (1990) had identified four broad areas of competence and skill which are crucial for the effective functioning of a Principal i.e., functional, programmatic, interpersonal and contextual.

a. PROBLEM OF APPOINTMENT:

In the recent past many Universities, had started new Degree Courses with the combination of different Scientific and Technical Courses. But the appointments are being made on the basis of the old degree pattern. No consideration is being given to the candidate’s intellectual abilities in the subjects that are being taught in the Polytechnics. As such many talented candidates could not be made available for teaching in the Polytechnics.

This becomes the outlook of the Head of Polytechnics- the Principals. His pivotal role was to look after the issue.

b. QUALITY PROMOTION:

The Principal as the academic leader of the Institution could play the Principal role in improving the academic standards. The Principal could be compared to the captain of a team or commander of an army. Just as the captain or commander had a crucial role in the success or failure of the team, the principal would play a pivotal role in the maintenance of academic standards in the Institution under his control. He/She could make or mar the reputation of a College.
For the effective functioning of a College, the Principal was to be an effective, active and dynamic leader. As the quality of education depended mostly on the quality of teaching, programmes to motivate the faculty could be organized by the principal. If such programmes were organized at the beginning of each academic year the teachers would have the required driving force and inspiration to discharge their duties with dedication. The Principal should lead the staff by example – that is by himself discharging his responsibilities with zeal and commitment. He should himself take classes and be an ideal teacher, if all the teachers in the college were to function as effective teachers. Identifying the staff for various academic and extra curricular activities co-ordinating their work, guiding and directing them and resolving conflicts among the staff required much resourcefulness on the part of the Principal.

The Principal could play an important role in improving the infrastructure facilities also. If the infrastructure facilities were improved, the quality of education would improve. For developing the basic infrastructure, the Principal should take-up the responsibility of finding the required financial resources. Good rapport with the community would enable the Principal to get funds from the community around the College.

The Principal should motivate not only staff but the students also. Unless the students had a positive attitude and were prepared to work hard it would be difficult to have high academic standards in the College. Motivating the students was not an easy work. Frequent contact with them and counseling of students by teachers would help students to develop the right attitudes. The Principal had to play a major role to see that in the college the examinations were conducted in a strict and fair manner.

The Principal instead of being a passive de-jure leader should become an active de-facto leader. But an active role for the Principal did not mean that he should
act in an authoritarian manner. Dictatorial functioning of the Principal would not help the Institution. On the other hand with persuasive and democratic style of functioning the Principal would be able to take the staff along with him which would help the Institution to perform well.

The Principal should play the role of manager of the organization. He should plan, co-ordinate and control the activities in the College and should take all necessary steps for the effective utilization of the resources both material and human, for the efficient functioning of the College.

Annual academic planning is necessary in all Colleges for their effective functioning. This planning and the monitoring of the implementation of the annual academic plan is the primary responsibility of the Principal. By drawing up a plan of work for the year and by taking steps for its effective implementation, the Principal would be contributing richly for the improvement of academic standards in the College.

Thus the educational institutions need a new generation of leadership for survival in the twenty first century because the leadership conquer the context that is conspiring against the establishment. Keeping this in view, the researcher had delved into the studies on leadership dimensions.

6.9. STUDIES ON LEADERSHIP DIMENSIONS:

A review of research on educational management should have a conceptual design. Management science had matured over the last few decades and is now capable of providing a theoretical framework. Management education per-se had matured in a significant way in this country with the establishment of the four Indian-Institutes of management, management departments in more than fifty Universities in this field. Nevertheless, education was usually not an area of operation in such management institutions.
On the basis of modern management concepts a review framework was carried out on the following dimensions of leadership behaviour in the educational sector and in the corporate sector known as

- Personal facet
- Performance facet
- People facet

Based on the above leadership dimensions a synthesis of review was carried out.

6.10. SYNTHESIS OF REVIEW:

Educational research in the field of management were to provide data based feedback for various processes and structures which operated in educational management. For that it would be necessary to examine the earlier studies. In these studies it was seen that a very large number of researches were completed in the areas of organization climate and rest of the areas were almost blank. Further it was evident that many such studies in the organisational behaviour area were influenced by the availability of some of the standard research instruments rather than perceived problems of management. For example, a large number of research scholars used LBDQ OCDQ and similar other questionnaires mostly based on Ohio state studies of mid of the century. Such studies had only contributed to some kind of an understanding of relationships among various variables.

To derive a more comprehensive and systematic frame of organisational behaviour, studies on leadership were needed along with organisational climate, decision making, motivation in work situations, group
dynamics and team building, conflict management, interpersonal relationships and communications in organisations. Studies on most of these critical problems were totally absent.

These studies did not document a single case elaborating the process of organisation development incorporating all the components of organisational behaviour. In order to bring research on organisational behaviour in education to a professional level, researches were to be initiated in many of these critical issues to bridge the existing gaps.

Organised research required to be initiated to understand the parameters that make an educational system more productive, more functional and more efficient.

Practically almost all studies on Leadership behaviour in Educational Institutions were carried out at school level and colleges only. No studies were undertaken at higher/technical education level. Also mostly they were carried out on the concept of 'initiating structure' and 'consideration' model and its off-springs. In the recent past, the management studies had outgrown in theories and concepts out manoeuvring the prevailing structure. Each management process component had become a specialized area. Personnel management had out grown into Human resource management further specializing in Industrial relation management, Labour management, Industrial Psychology, Counseling Psychology, etc. A different concept of marketing had been developed. Further administrative managements had developed into operational management, development management, environmental management and so on. As such total organization management required a super specialization - a man of different nature from the normal manager - a behaviour that made the organization to behave proactive in a competitive environment - particularly for educational management process for which the input is human being, processor is human
being, and the output is a changed human being. Unlike in the case of industrial and business organizations, professional management research in organizational structuring and other processes of optimization was totally absent in education. Keeping this in view, this researcher had decided to carry out the research study to find out new factors in Leadership behaviour.

6.11. SYNTHESIS ON CONCEPTUAL ANALYSIS:

The conceptual framework was structured with the following titles:
- Why of leadership
- What of leadership
- Who of leadership
- How of leadership
- Theories of leadership
- Perspectives on leadership qualities
- Performance of leadership
- People dimension

"Though men abound all ready for the war
No army is where no fit leader's are " (Kural -770)

Thirukkural is an ancient Tamil classic in couplets written by Thiruvalluvar a minister in a Tamil kingdom. It is a master piece containing principles and practices of management that can be applied even in the modern context.
For the question why the leadership was important to an organisation, the answer was given by Thirukkural 770, that even if the men were abound with talent the war would not be won without a good leader.

For the question what was leadership the answer was given by many authors as a process of influencing the others for achieving the envisioned goal.

For the Question who was the leader, the answer lay in the fitment of individual role in three facets:
- who he was,
- the role that he took had to fit the task and
- the role that he took had to fit the expectation.

For the Question how the leadership was exercised the answer lay in a matrix concept in four areas with relation to three levels of practice that was Educational, cultural, Economic & administrative and social versus individual, institutional and community.

For the question of theoretical approaches to the leadership studies, there were four approaches
- Personality trait approach
- Behavioural approach
- Contingency model approach
- Attribution theory and charismatic leadership approach.

For the question of qualities and competencies there were two basic competencies required for a leader a. Knowledge competencies and b. Action competencies, with corresponding knowledge qualities and action qualities.
The titles under action competence are:

- Initiation
- Environmental and political affiliation
- Problem solving
- Resource and support mobilization
- Challenge facing and stress tolerance.
- Decision making
- Task accomplishment and win
- To be innovative
- Selecting counsel
- Human relation to realise potential
- Effective communication
- The role change to suit the task/situation
- The role to fit the expectation and
- Self development.

Performance Dimension:

Action should result into good performance. Performance required good planning. Strategies converted the plan into results. They converted the wants into accomplishments. There were various strategies.

- Marketing and fund development strategy.
- Win strategy
- Innovative growth strategy
- Innovative competitive strategy

Any institution formed by making human resource productive. It accomplished its performance through work. The work had to be productive. For that certain basic rules were to be adhered to and effective decision was to be taken.
People dimension:

People decisions were the ultimate perhaps the only control of an organisation. People determined the performance capacity of an organization-no organisation could do better than the people it had.

People development was essential for the better performance of the organisation. It had to give informal learning and training. Building a team was an important aspect of people dimension. Organisations used teams and task forces for specific missions. Teams were created to pool the talent, energy and initiative of several persons so that this group of persons could achieve what might be very difficult for individuals to achieve alone.

With this conceptual framework the researcher looked into the “Leadership behaviour of Polytechnic Principals in TamilNadu”.

6.12. STATEMENT OF THE PROBLEM:

Peter Drucker considered the universities, colleges, hospitals etc., as non-profit institutions in to-day's society of institutions. The performance of these non-profit institutions could have a telling effect on the performance of other institutions like industry, business, government and defence. These educational institutions had to tide over various interactive forces exerted by internal culture and its environment. The information revolution, globalization of economies, free movement of population and cultures, the radical transformation of trades and professions had re-shaped the framework within which the educational function was carried out.

Apart, the resources available to education were more limited. This was to be managed and used with extensive care. Also educational institutions were to make use of fast changing technological innovations, particularly in the field of telecommunications and computer technology and to integrate them in the
educational process. In order to face a volatile society, educational institutions should be able to change. Colleges should not only adopt to changes but also should manage to see it coming. Given the circumstances, an educational enterprise would find the leaders needed to face changes and even provoke it. So the research study had been titled appropriate to the problem faced in educational system in General and Technical education in particular.

6.13. TITLE OF STUDY:

The title for investigation is “Leadership behaviour of Polytechnic Principals in Tamil Nadu”.

6.14 OBJECTIVES:

1) To identify the various dimensions of leadership behaviour of Polytechnic Principals.

2) To conduct a factor analytical study on identifying the leadership components of Polytechnic Principals.

3) To cull out the underlying constructs of the leadership behaviour of the factor analytical model.

4) To find out the leadership behaviour of Polytechnic Principals.

6.15. POPULATION:

The population for this study was defined as the Principals of Polytechnic in TamilNadu. There were 120 Polytechnics, in total, consisting of 25 Government Polytechnics, 25 Government Aided Polytechnics and 70 Self financing Polytechnics. Questionnaires were sent to all Principals. There was no sampling technique followed.
6.16. RATE OF RESPONSE:

The research faced slow rate of response. On first despatch of the research tool, only 30 responses were received. A second request was despatched for which another 25 responses were collected. Then through personal persuasion another 25 responses were received at the third time. A total of 80 responses have been received, the return rate being 66%. They were subjected to factor analysis.

6.17. ASSUMPTIONS:

The following assumptions were made for the purpose of this study.

- A high level of knowledge competence exist among principals.
- A high level of action competence exist among principals.
- A lot of role change activities exist among principals.
- A lot of planning and strategical activities exist among the principals.
- A lot of people development activities exist among principals.
- A lot of team building activities exist among principals.

6.18. DEFINITION OF TECHNICAL TERMS:

Following are the definitions of key technical terms used in the research.

a) **Leadership Behaviour**: It is a change agent that produces changes in totality in a given situation.

b) **Principals**: The heads of Polytechnic Institutions.

c) **Polytechnic**: Institutions that prepare the students for the award of diploma in Engineering and Technology.

d) **Non-profit Institutions**: Schools, Colleges, Churches, Hospitals that produce a change in human being.(Peter Drucker)

e) **Organising**: The process of engaging two or more people in working together in a structured way to achieve a specific goal or set of goals.
6.19. DEVELOPMENT OF TOOLS:

The tools available for studying leadership behavior were based mostly on Ohio state study which mainly concentrated on the style of leadership behaviour.

In the recent past, the management studies had developed well and a number of literatures with new theories, new concepts had sprung forth. So it was decided to construct a new tool for the leadership behaviour.

For the construction of tool, the surveys on education research was gone through. Then a number of literature on management, organisational behaviour, educational psychology, sociology, social psychology philosophy and political science were scanned for new concepts, definitions, dimensions and theories of leadership and a tool was designed. It was formed on three facets of leadership namely personal, performance and people. The Personal dimension had 15 variables, the performance dimension had 8 variables and people dimension had 3 variables with a total of 163 statements. These statements were formed under 5 point scale. The items were graded as most suitable, more suitable, suitable, least suitable and unsuitable.

6.20. SYNTHESIS ON DEVELOPMENT OF THE TOOL ON LEADERSHIP BEHAVIOUR:

In order to study the leadership behaviour of Polytechnic Principals in TamilNadu, a new tool was developed based on various concepts, on three facets of Leadership Viz. Personal, Performance and People. According to Arthasartha and Thirukural, Leadership has six elements apart leader. In modern terms, they are: People, Counsel, resource, support, strategy and security.
The synthesis emphasised the veracity of the statement listed in the questionnaire tool. The questionnaire were formatted in the function oriented style so that the respondent's view would be an action oriented response which would be a straight real behavioural depiction. Because behaviour involved all types of activities performed by an individual in any state or condition. It was the total response which a man made to a situation.

6.21. ABSTRACT OF THE TOOL:

The tool was constructed on three facets of Leadership Viz. Personal, Performance and People. The number of statements under each dimension is given in the table.
Table-6.1 : Abstract of the Tool

<table>
<thead>
<tr>
<th>Leadership facet</th>
<th>Name of Variable</th>
<th>No of statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Personal facet</td>
<td>a. Knowledge competence</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>b. Action competence</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>1. Initiation</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2. Environmental and political affiliation</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3. Problem solving</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>4. Resource and support mobilization</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5. Challenge facing and stress tolerance</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>6. Decision making</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>7. Task accomplishment and win</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>8. To be innovative</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>9. Selecting counsel</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>10. Human relation to realise potential</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>11. Effective communication</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>12. The role change to suit situation/task</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>13. The role to fit the expectation</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>14. Self development</td>
<td>6</td>
</tr>
<tr>
<td>II. Performance facet</td>
<td>a. Planning for performance</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>b. Strategies to convert the plan into a action</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>1. Marketing and fund development</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>2. Win strategy</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>3. Innovative growth strategy</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>4. Innovative competitive strategy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>c. Adherence to the basic rules</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>d. Effective decision</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>e. Productive work</td>
<td>7</td>
</tr>
<tr>
<td>III. People facet</td>
<td>a. People decision</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>b. People development</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>c. Building the team</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td><strong>In total 163 statements were developed for the research tool.</strong></td>
<td><strong>163</strong></td>
</tr>
</tbody>
</table>
Some of the sample statements are given below

<table>
<thead>
<tr>
<th>Most suitable</th>
<th>More suitable</th>
<th>Less suitable</th>
<th>Unsuitable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Principal listens patiently to what others say discerning the reality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Principal weighs well the good-bad, gain-loss efforts before initiating action.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The Principal brings order even to the most messy work situation through systematic analysis</td>
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Responses of the principals were subjected to factor analysis.

**6.22. APPLICATION OF FACTOR ANALYSIS:**

Several theories of intelligence were based on the application of factor analysis. Important among these theories are Spearman's two factor theory, Thurstone's theory of primary mental abilities, Guilford's structure of intellect model, Cottell's theory of fluid and crystallized intelligence and Vernon's hierarchical theory.

Another important area in which factor analysis had been used was the development of test. In this aspect factor analysis helped in deciding the factor structure of the items in a test and also in giving the name to the concept to be measured by the test. Factor analysis was also found to be useful in the search for primary interests, attitudes and temperaments traits.
Factor analysis was applied for data reduction when the investigator wanted to reduce his variable to a smaller set by essentially decomposing the original variables into a new subset of hypothetical variables composed of linear combinations of parts of the variance of the original variables. (Anderson 1963)

Factor analysis could be used to combine and scale several measures of uni-domain (such as extroversion or neuroticism or verbal fluency) so as to produce maximum discrimination among individuals along a single dimension (Takenchi, Yanai and Mukherja 1982)

Factor analysis had revealed the maximum number of independent dimensions that were required to define adequately the domain under investigation.

6.23. FACTOR ANALYSIS:

The essential purpose of factor analysis is to describe if possible the co-variance relationships among many variables in terms of a few underlying but unobservable random quantities called factors.

In the area of psychological testing, the purpose of factor analysis is to find a set of salient factors that will account for the major part of the variance of a set or group of scores on different tests.

Suppose variables can be grouped by their correlations, that is, all variables within a particular group are highly correlated among themselves but have relatively small correlations with variables in a different groups it is conceivable that each group of variables represents a single underlying construct or factor, that is responsible for the observed correlations.
All procedures for factor analysis require the same basic kind of data for the purpose i.e. for correlational matrix. There are a few procedures which can also use the matrix of co-variance. The main methods of factor analysis are Principal component method

- Principal axes method
- Summation method
- Centroid method.

6.24. PRINCIPAL COMPONENT:

Principal Components are linear combinations of random or statistical variables which have special properties in terms of variables. For example, the first principal component is the normalized linear combination (that is the sum of squares of the coefficients being one with maximum variance). In effect, transforming the original vector variable to the factor of principal components amounts to a rotation of co-ordinate axes to a new co-ordinate system that has inherent statistical properties.

The principal components turn out to be the characteristic vectors of the covariance matrix. Then the study of principal components can be considered as putting into statistical terms the usual developments of characteristic roots and vectors (for positive semi definite matrices).

From the point of view of statistical theory the set of principal components yields a convenient set of co-ordinates and the accompanying variances of the components characterize their statistical properties. In statistical practice the method of Principal Component is used to find the linear combinations with large variance. In many exploratory studies the number of variables under consideration is too large to handle. Since it is the deviation in these studies which are of interest, a way of reducing the number of variables to be treated is to discard
the linear combinations which have small variances and study only those with large variances.

6.25. FACTOR ANALYSIS TECHNIQUES:

In statistical language, the factor analysis is a technique to replace the correlational matrix by the factor matrix. The number of columns and rows in case of correlational matrix is same and the cell entries are nothing but the correlational values. The range of correlation values is from +1.0 to -1.0. In the factor matrix, the columns are generally less than rows; and the columns are the common factors while the rows are the number of tests/variables. The cell values in case of factor matrix are known as factor loading and their range is +1.0 to -1.0. These cell values are correlations of tests with the factors, if the factors are orthogonal (Uncorrelated). But if the factors are oblique (correlated) then the cell values in a factor matrix may or may not be the correlations between the tests and the factors.

6.26. EXTRACTION OF FACTORS:

The basic data required for the extraction of factors was correlation matrix. In any correlation matrix derived from test scores or values, the diagonal cell values are empty. So the question arose what values were to be placed on the diagonal. These values could be i) reliabilities of test 2) estimates of communalities 3) all 1.00 values. In case of Hottelling Principal axes method, the diagonal entries are all 1.00. In the Thurstone centroid method, communalities were used in the diagonal of the correlation matrix to calculate the factors. In reality, the choice of diagonal entries affected i) the number of factors extracted and 2) the factor loading of each factor on each test.
6.27. **ROTATION OF THE FACTORS:**

Factor rotation is a procedure used for the purpose of simplifying the interpretation of the obtained factor and also to increase the number of high and low positive loading in the column of factor analysis. There are two basic methods, i) Orthogonal rotation and oblique rotation. Orthogonal rotation method is employed when we have factors that are not correlated with one another while the oblique rotation method is employed when the obtained factors are related to one another.

6.28. **INTERPRETING THE FACTOR:**

After the statistical computations of factoring and rotation were completed, the next problem faced by the investigator would be of interpreting the factors. This was achieved by inspecting the pattern of high and low loading of each factor on the sub-tests/variables. It was remembered that the higher the loading the more important would be the factor in the given variable/test.

6.29. **NUMBER OF FACTORS TO BE EXTRACTED:**

Theoretically speaking the maximum number of factors that could be extracted in any one problem would be equal to the number of variables/tests involved. For instance, if we had a correlational matrix of order 10 x 10, then maximum number of factors that could be extracted would be equal to 10. But the basic problem in factor analysis was to extract the common variance, that was, the important factors which could explain maximum variance. Therefore, it was essential to decide how many factors should be extracted in a particular research problem. There were three methods to answer this question. These are a) Fruckter formula b) Eigen value Index and c) Residual correlational matrix.
a) Fruckter formula:

The formula proposed by Fruckter to extract the number of factors in a problem is

\[
\text{Number of factors} = \frac{(2n+1) - \sqrt{8n-1}}{2}
\]

where \( n \) is the number of variables in a problem or correlational matrix.

b) Eigen value Index:

Another method is to go on calculating the factors till one gets the Eigen value equal to 1.0. In other sense only those factors are to be extracted which have Eigen value equal to or more than 1.0. The factors which show Eigen value less than 1.0 are not taken into consideration. This method is generally employed when one extracts the factors with the help of computer package.

c) Residual correlation matrix:

In this method, the residual correlational matrix is observed and if it is seen that most of the correlational co-efficient in the residual correlational matrix are zero or approximately zero then further extraction of the factors is stopped.

In this research, Eigen value index method was used to extract the factors.

6.30. RESEARCH STRATEGY:

The behaviour is the expression of one's activities which give us knowledge e.g. perceiving, imaging, thinking etc. and emotional activities like feeling happy, disgusted, angry or frightened. Experience has three shades and hence we get three aspects of behaviour namely, cognitive, affective and conative (Dandikar, W.N. 1981). But most of the studies conducted, so far, on the leadership behaviour, were based on the response of the subordinates placed under a leader. Thus it reflected the reaction of the subordinate on the action of the leader, through which the behaviour of the leader had been found.
As an Individual's behaviour is the expression of his/her action, this researcher used the strategy of measuring the actions of the leader through the design of a work-formatted questionnaire, and despatched it to all Principals to elicit their action perception, thereby measuring their behaviour.

6.31. SCHEME OF DATA ANALYSIS:

First factor analysis was carried out on the basis of correlational matrix. The principal component method was used for the extraction of factors. On the extracted factors varimax rotation was carried out for easy interpretation. Eigen value method was used to determine the number of factors to be extracted. Accordingly, three factors were extracted as they had the eigen value higher than one.

6.32. NAMING THE FACTOR:

The variables under each factor were grouped in the order of factor loading. These variables were logically analysed and named accordingly viz, Leader role dynamics 2. Organizing mechanism 3. Integration of work and worker.

6.33. DESCRIPTIVE ANALYSIS:

Then the descriptive analysis was carried out on all 26 variables. The mean and standard deviation on all statement under each 26 variables were calculated. Each statement was analysed according to mean value. Arithmetic mean for each variable was also calculated. In this way description of mean value for each statement of 26 variables were analysed and the respondent orientation on statements was indicated.

6.34. COMBINATORIAL ANALYSIS:

Then the respondents view on every variables on each factor was analysed combining the descriptive analysis-in combinatorial form. In this the mean S.D, arithmetic mean of the variable and the factor loading of each variable were analysed. Weighing on these values the respondent's preponderance on leadership behaviour was indicated.
6.35. FINDINGS:

FINDINGS

Finding I: TRIPOD DIMENSIONS OF LEADERSHIP


Finding II: FACTORS THAT CAUSE THE EMERGENCE OF LEADERSHIP

The factor analysis of the respondents’ view reveals that there are three main factors that cause the emergence of leadership. They are 1. Leader role dynamics 2. Organising mechanism and 3. Work and worker integration.

Finding III: THE UNDERLYING DOMAINS OF LEADERSHIP

The combinatorial analysis of the respondents view has brought out the underlying domain construct of the leadership behaviour. They are:

1. Action initiation domain.
2. Resource development domain
3. Task accomplishment domain
   - under leader role dynamics

1. Plan and strategy domain
2. People domain
3. System architectural or Performance for win domain
   - under organising mechanism

1. Work domain
2. Worker domain
   - under work and worker integration
Finding IV: ACTIONS ARE NECESSARY FOR LEADERSHIP

On the basis of combinatorial analysis of the respondents’ view, it is found that respondents consider that the leader has to carry out the following actions for the emergence of leadership.

Action under factor I:
- Carrying out cause-effect analysis for initiation
- Facing challenges with serenity and equanimity
- Perceiving reality about people surrounding and crisis.
- Mobilizing resource and support
- Sensing environment and generating affiliations
- Thinking divergently and convergently for problem solving
- Balancing the decision making

Action under factor II:
- Creating a proper mind set for innovative strategies
- Acquiring co-operation of people with insight
- Orienting towards customer for competitive strategy
- Deciding strength and place for people development
- Remaining aware of changes of performance with humility for self development
- Prioritizing the tasks in consonance with mission and vision for planning performance
- Segmenting market area with accountability point for win strategy.
- Organising on communication basis for time bound task accomplishment
- Designating competent people for the job with empathy for realizing human potential.
- Changing role according to situation and contingency
- Coming out with original solution exciting people to be innovative.
Action under factor III:

- Creating record of performance
- Making communication effective through lucid speech
- Creating good people relation for teamship
- Taking proper people decision to increase performance
- Creating rapport with board and public for fund development
- Creating feedback and control system for productive performance.

FINDING V: PERCEIVED LEADERSHIP BEHAVIOUR OF POLYTECHNIC PRINCIPALS IN TAMILNADU.

From the combinatorial analysis of the respondents’ view it is found that the polytechnic principals have the perception of the following leadership behaviour.

1. The Principals carry out, gain-loss, resource suitability, time suitability, strength suitability analysis and critical action analysis before initiating action.

2. The Principals put forward persuasively their point of view even under stress, maintaining equanimity under duress conditions and find a way out in a tight corner.

3. The Principals make clear what is expected from others - listening patiently, comprehending others’ sense and anticipating crisis.

4. The Principals mobilize the resources and optimize their use enthusing individuals in the task.
5. The Principals remain alert to the happenings around, understand the power structure, and do the right things at right time developing informative influential contacts.

6. The Principals carry out the systematic analysis, thinking alternative courses of action and follow up the action for solving the problem.

7. The Principals make themselves accountable for getting the job done giving more importance to the task than to the self while accomplishing any new task.

8. The Principals make futuristic decision without dampening the present situation, balancing the resources allocation.

9. The Principals group the people and create a proper mind set to find new things with available resources, diversifying them at the opportune time.

10. The Principals establish friendship with men of wisdom and acquire the co-operation of persons who understand the root causes of the problems, and retain friendship of persons who reprove whenever erred.

11. The Principals orient towards customer and market research in order to cut cost through innovations.

12. The Principals develop people by placing them appropriate to their strength and by setting demanding standards. Then review the work at their area of excellence without allowing society's class system to interfere. Principals do not take short sighted view on people's development.
13. The principals acquire more capacity and weight as a person, working smartly and striving for excellence through record of performance holding self accountable for actions while watching out the signals for change.

14. The Principals sustain self renewal process by teaching and serving down the rank and by curbing the pride of I and mine.

15. The Principals involve various constituencies involved on long term goal while planning for short range efforts, defining the performance in terms of vision, standards and human competence. While planning, the principals create interactive system on communication basis and prioritize the tasks considering opportunity, strength and the commitments.

16. The Principals convert goal into specific target in a specific market area, creating feedback and control points for each target, while preparing a market plan and effort for each group. Placing the people where they can produce, principals follow up activities communicating to people for each task with their accountability deciding on logistic requirements and abandoning the things that are not working.

17. The Principals delegate work with well defined task and accomplishment time by building trust on people and setting understandable high goals. Then the Principals build organization around information and communication, not tolerating discourtesy while considering feuding and bickering as symptoms for change.

18. The Principals bring disagreement into open, and brush aside trivial conflicts while using the dissent to understand what it really is about in taking decision.
19. The Principals designate competent people to do the job, and build into the decision the responsibility for bailing out failures thinking alternatives ahead for falling back when they go wrong.

20. The Principals attract people to seek solace for their emotional stress, remaining quite, direct and open in dealings enjoying working relations with people, sensing the feelings of others in their view and helping them in their need as a duty.

21. The Principals take the opinions from the colleagues at work retaining friendship of timely helpers, and build the quality of people, feeling happy in the progress of able people.

22. The Principals change their role according to the situation depending upon the maturity of people for various operations.

23. The principals make people excited about achieving visualised goals seeking novel or off-beat solutions for difficult problems.

24. The principals keep in touch with major developments, in various fields and rope-in the influential people for implementing new ideas.

25. The principals make work productive by deciding the required sequential operations needed in an appropriate productive system and selecting the tools that utilize the minimum effort.

26. The Principals build feedback points and the controls of directive standards and exceptions in the process only where the malfunction is likely to occur.
27. In order to develop the marketing and fund the Principals build networks for extraction of information about the customers to propagate to them about what is being done for their needs and to create the awareness about and loyalty to the institution.

28. The Principals select the people through giving assignments and looking at the people strength through their performance and then give the induction training to the selected people in order that they understand the work culture of the institution.

29. The Principals speak eloquently weighing the words so as to create a favorable reaction and to make people work willingly. Even point out the mistakes with 'reined' tongue.

30. The Principals build the team for a task by allocating jobs to the persons who can do it, structuring the team with open communication to be cohesive even in trivial situation and ensure the individual member's commitment to the organization's common goal by finding out the problems and progress of individual by going to them. They build the team with the minimum required members beginning with the start of the job and ending with results in a specific task creating a collaborative and positive relationship.

31. The Principals fulfill the expectation of others through their performance implementing a record of successful innovations and by maintaining an above average growth rate thereby creating an image of innovative organization.
6.36. EDUCATIONAL IMPLICATIONS:

In order to cover all possible connotations of the educational implications of this research study, the deductions from the tool used, the technology of data analysis and the resultant leadership model are enumerated first.

- The fulcrum of leadership measuring tool is the encyclopaedic ‘Thiru Kural’-a treatise on leadership principles and practices. And it is supported by the modern management Guru Peter F Drucker whose ideas on educational institution management (Non-Profit institutions) are in consonance with the thoughts of Thiruvalluvar in many aspects.

- The tool is a three faceted creator of leadership the facets being 1. Person 2. Performance 3. People.

- The tool confides the competence compliance (both knowledge and entrepreneurial) and performance of both organization and people. The performance is the effect of power transformation with the resultant action.

- The tool defines leader through his mission only i.e. leader is only a person who changes situation for good of people at large following the principle of equity and justice – a principle enunciated in Thirukural.

- The tool concentrates on leadership’s six elemental contents apart leader people, strategy, logistic resources, alliances, counsel and defensive mechanism.

- The data analysis is carried with the help of factor analysis which has brought out various inherent domains of leadership.
The data analysis has revealed a kaleidoscopic sight of a combination of humanistic mathematics, art and science of leadership. It is a revelation of dynamic personae in action.

The research has revealed a new aspect of leadership that is the leadership is a phenomenon, not a trait or situational contingency. It is neither a matrix formation of styles nor a mere transactional process. The leadership phenomenon emerges only when all the three factors viz. leader role dynamics, organising mechanism and work-worker integration amalgamates to create leadership. In the absence of any one of the factors, the leadership phenomenon is not likely to emerge.

From the resultant factor model of leadership the following basics can be perceived.

- The person has to carry out the 'Leader role'.
- The leader has to carry out initiation of action with mathematical precision calculating various cause-effects.
- The leader has to mobilize resources men, material and money.
- The leader has to organise the system systematically having knowledge about the task and the available people.
- The leader has to develop himself and people for proactive performance through training, self training and value-addition.

Through the above deductions of the factor analytical model leadership if one looks at the present education system/process the following imperative implications are imposed on education.
a. In the education process system

➤ At the levels of education management, the modern *management techniques* are to be incorporated.

➤ The educational organisations are to be made suitable for the changing modern requirements as the present *institutional organisation* has out-lived its utility.

➤ Organising process for each task must be *in vogue* and it should be methodical and based on competency.

➤ The standards for each sub process are to be specified and *feed back points* created to measure deviation so as to improve quality.

➤ *Accountability* is to be built-in in the task allocation incorporating management auditing.

➤ Organisation system should be oriented towards ‘*customer’*.

➤ Organisation system should provide sufficient space for co-curricular activity to effect training for the transfer process of human energy to the environment for *proactive performance*.

b. In the curricula

*Human relational sciences* are to be incorporated in the curricula, as the *technical education* stands materialistically isolated leaving a wide gap in the *life skills* requirements of the perspective users and the actual possession of the institutions pass-outs.

* A training culture* should be created in a deliberately planned way on the educational environments.

* In the curricula sufficient provision must be made for the development of *knowledge competence*.

* The curricula implementing technique and appraisal system must be so designed to *develop problem solving ability and decision making process*.

* The curricula must be made effective for *self development*. 
• New course of study on Educational Leadership may be created at undergraduate and post graduate levels incorporating modern management techniques with training oriented curricula.

b. In the Education Research – preponderance for phenomenological approach with factor analysis.

The factor analysis technology brings out the underlying domains in a phenomenon as evidenced in this research. Phenomenon encompasses the microscopic problems which can be brought out vividly through the factor analysis techniques. As the education process is a system, interactive process, an integrated approach on educational research may be made for educational phenomenon rather than on mere microscopic problems as the problems can be brought out vividly with its backgrounds through modern techniques. Having brought out the problems with environment backgrounds, they can be explored through either clinical or pathological analysis.

In this regard, John W. Best is to be cited “The methodologies utilized in the conduct of educational research are based in most instances, on research methods used in the behavioural and social sciences, relying mostly on psychology, sociology and anthropology. Since research in these fields of study emphasizes logical positivism, which uses experimental and quantitative research methods, most educational research also utilizes these methodologies. Still, some research concerns may be addressed more appropriately with a phenomenological or qualitative research approach derived from humanities, particularly history and philosophy or with qualitative methods from the social sciences.

6.37. Suggestions for further Research:

This research has brought out an outsketch of the leadership phenomenon. If further researches are carried out in the following lines a clear pictures about leadership can emerge.
This research has not dealt with the personal dimension, performance dimension and people dimension in detail in its dynamic aspect in the context of factor analytical model of leadership. So a detailed research may be carried out on:

- Leader as a person in action.
- Leader as an organiser.
- Leader as a people’s person.

A detailed research study may be carried out to find out a suitable education organisation in the context of challenging and volatile environment, employing case study approach under the factorial leadership model.

Following case study method, a comparative research study on the performance of departments and other institutionalised subsystems of education institutions may be carried out with benchmarking techniques under the factor analytical model of leadership.

Research study may be carried out to find out various action initiation process in the education institutions and its departments, with benchmarking and case study approach based on factor analytical model of leadership in the educational systems.

A case study method with benchmarking may be used to find out problem solving process and task accomplishments with the factor analytical model of leadership in the educational institutions.

A detailed research may be carried out to find out the existence of team forming practices in educational institutions using case study and comparative research process.
- A detailed research may be carried out to find out a new **institutional structure** in the context of the factor model of leadership. An integrated approach may be followed.

- A detailed research may be carried out to find out new **educational technologies** in the context of the factor analytical model.

- An integrated research may be carried out to find out various **management techniques** to suit the modern educational institutions with factor analytical model of leadership.

- A confirmatory research on factor analytical model of leadership may be carried out in various educational institutions and its subsystems.

- A case study and comparative or integrated research may be carried out to find suitable **educational process controls** with specified feedback points and monitoring system under the factor analytical model of leadership.

- An integrated research may be carried out to devise **educational strategies** in order to make the educational system a dynamic one based on factor analytical model of leadership.

- An integrated research may be carried out to devise a new **statistical tool** for appraisal system in the educational process and institution for factor analytical model of leadership.

- An integrated research may be carried out to find out how the various research findings can be utilized for making educational process effective.
• An integrated research may be carried out to devise suitable marketing techniques for educational institutions based on the factor analytical model of leadership.

• A comprehensive research may be carried out on Thirukural through modern education technological ideas to reap a rich harvest for educational practices that will enable the system to face the prevailing challenges with factor analytical model of leadership.

16. An integrated research may be carried out for the concurrence of the following observations about the underlying construct of the factor analytical model of leadership

The leader has to:
• keep the mind serene to initiate action and remain steady in the rising tide of stress created by initiation
• gain energy through self development and people development having good human relations.
• Transform the energy to the environment to create performance.
• integrate work and worker for proactive performance.

• An integrated research may be carried out to innovate the technology of education for training interlocked educational process based on the following concept of factor analytical leadership model.

✓ An individual can himself develop leadership practices through undergoing training and carrying out self training. It demands mental agility and physical agility. The individual has to do work – both mental work and physical work. The work has two components – prescribed component and discretionary component – prescribed component can be carried out physically through training. But to carry out the discretionary component of work the individual
must have the knowledge of humanistic mathematics – a calculation to be derived by his mind whose working requires conditioning and training including self training.

✓ Modern neuro scientists have concluded that the mind does exist in the body though they differ on its exact location, but one thing is certain that the mind acts through brain and vice verse and the brain has contact with the whole body.

✓ Quality work comes out of training on proper and efficient use of tools applied – both knowledge tool and materialistic tool. Psychologists assert that the only living creature that can not do even its normal day-to-day activities without training is human being. New born animals carry out life activities of itself like its elders without any body’s help where as new born human beings requires practice from another human being even for eating – walking and talking etc. Depending upon the method of practice given – that is experience obtained – human being behaviour varies. The behaviour reflects the personality.

✓ The human personality is determined and defined by the quality and texture of one’s mind and intellect if his / her totality is communicated outside properly then only the personality is expressed.

✓ Hans Eysenck who gave the theory of personality came with the idea that the source of the structure of personality can lie only in the organisation of the brain, irrespective of genetic, environmental or social influences.

✓ Human being has body, mind and intellect as three equipments of experiences through which life constantly pulsates. These three instruments, the body, the mind and the intellect have their own distinct characteristic in each person and the personality expressed when life throbs through them, is therefore distinct.
Hence each man is a unique personality. His total world of experience is made-up of world-of-objects, the world of feelings and the world of ideas. All these put together constitute his total field of experience in the world outside.

✓ So one must know the art of tuning these instruments properly so that through them he may have the proper experience of the world fully. The world outside is recognised and experienced by the individual never as such, but only as interpreted by his own mind and intellect as the mind is our experience of the world. These can be developed through both physical and mental training.

♦ An integrated research may be carried out for the concurrence of the following theory proposed and named as Thiruvalluvar theory of leadership by this researcher based on the factor analytical model of leadership. It is a statistical thermodynamic theory of leadership whose principles and practices can be observed in Thirukural.

The theory expounds that the leadership evolves through integration process of three prime factors viz. 1. Leader role dynamics, 2. Organising mechanisms and 3. Work-worker integration.

Hence “The Leadership evolves when the leader gains energy through self-development and people development remaining innovative in human relation for realising human potential and conserving energy by maintaining mental calmness and serenity, transforms the energy to the environment through artifact process of ‘organising’ for proactive performance.”

In the role dynamics, the individual has to play the role of a leader-the role being dynamic in nature. In the role play, the leader initiates the task, with a
mathematical precision considering permutation and commutation of various effects. Once action is initiated, the leader remains artistically ‘rigid’ (calm) in the spin of stress and strain caused by the action-reactions of the initiation. (A successful man never allows his faculty of discrimination and judgement to be disturbed by the rising tides of his mental emotions) Remaining steady under the gyration of stress the leader systematically process ‘the environmental and political affiliation’ ‘support mobilization’ and ‘decision making’ for acts of commission and omissions and ‘solves the problems’ for task accomplishment and win. (To mould one’s destiny is the privilege of the men of cultivated will)

For the task accomplishment, the leader carries out the artifact process of ‘organising’ to make the people perform while grouping them for innovations by creating proper mind set to think differently and independently through training and orienting them towards customer and market research; also places people where they can produce communicating to them with their accountability for carrying out various strategic actions. The leader acquires energy through self-development having human relation with people for realising their potential and being innovative and transfers the energy through ‘system artifact of delegating work with well defined, time bound task and building trust on people. The energy transformation system is built around information and communication bringing conflicts open to brush them aside . The system is a work related one, not structural.

For the accomplished task to be productive, the leader integrates work and worker – the work is the action and the worker is an actor. Only when the action and the actor is integrated, ‘Productive performance’ is achieved. So the leader scientifically selects the sequential specific operations with appropriate feedback points in the process for measuring permissible tolerance in the appropriate production system, placing control points only where the malfunction is likely to occur. While and relating them through communication, ensures the commitment of people towards goal by taking proper ‘people decision’ and maintaining rapport with various constituencies.
6.38. CONCLUSION:

This research started with the premise that the educational aims are two fold – proximate aim and ultimate aim. For Brubacher(1966) the proximate aims are 1) command of fundamental process 2) health 3) worthy home membership 4) vocation 5) Civil function 6) worthy use of leisure time 7) ethical character etc. To Herbert Spencer all the above come under one title known as complete living aim.

Ultimate aim of education differs author to author. For some it is that the education should help achieve self-realisation. Rousseau, a naturalist thinker, wanted ‘to make a man’ as the ultimate aim of education. For John Dewey, the pragmatist, to grow is the ultimate aim of education.

In this context to quote Dr. S. Radha Krishnan will be apt: “It is essential that education should give not merely learning and skill but endow one with a definite purpose in life. What that purpose is, one has to define for one self. The true end of education is not the acquisition of information, important though it may be or acquisition of technical skills though they are very essential in modern society. One must have that superior outlook which goes beyond information and technical skill. Information is not knowledge nor knowledge is wisdom. One must have the capacity to subsist in the battle and to look at things as they happen with out any kind of inward disturbance or perturbation of one’s being.

This research study has quoted many problems faced by the educational institutions in achieving the educational aims and emphasized that a new generation of leadership is required to achieve the aims. Modern concept of leadership revolves around the action – converting good intentions into specifics. Leadership does not exit in vacuum and without people. It has to act and interact with people – the unpredictable phenomenon in reality, exerted by various forces and influenced by various factors.

In this research the tool used confides on the leader the competence, both knowledge and entrepreneurial and the performance of the organisation and people. The leader has to act accordingly. Activity should not be a mere physical performance. In the activity along with physical phenomenon, if the head and heart are integrated, there arises a new dynamism of artistic perfection in that undertaking. For this the leader should understand the physical, psychic and social needs of people and assess the situation in its static and dynamic aspects. Further, the present study reveals that the leadership emerges when a leader expresses
his dynamism and faculties latent in him through the performance of his acts creating a proactive performance among the people.

A leader is expected to lead regardless of the weather. What matters is that he or she works on the basic competences. Yues Sanssouci (1995) summarizes the four major categories of ability that the educational leader must seek to acquire: 1. Personal abilities 2. Symbolic abilities 3. Interpersonal abilities and 4. Organisational abilities. Warren Bennies identified four skills for leaders. They are: 1. Knowing how to manage attention, 2. Manage purpose, 3. Manage trust and manage One's self. Apart from this research study expounds that the leadership evolves through integration process of three prime factors viz., 1. Leader role dynamic 2. Organising mechanism and 3. Work and worker integration.

All these demand a high level of intellect and balance of mind. For the non-philosopher, it can be assumed to represent a combination of: awareness of self and environment, intelligence, personality judgement, abstract thinking, rationalisation, distinguishing good or bad and other higher functions of the brain – perception, memory, learning skills, forethought and similar features. (Ganapathy B. 1996).

Researchers have been working overtime to demonstrate that the line separating between mind and the senses (physical palpable matter) is indeed an extremely thin one. The modern scientific equipment PET (Positron Emission Topography) studies of mind functioning have shown that an individual is considered to be intelligent when his brain activities are in low ebb. Scientists believe that the mind is not an epiphenomenon of the brain. It exists because of the brain and is a function of the brain just as in motor action sensory perception. The personality should be exposed through it. The human personality is determined and defined by the quality and texture of one's mind and intellect. If his totality is communicated outside properly then only the personality is expressed. Physical development is essential because the body's posture reveals an unseen mental posture asserts
psychologist Gay Goer Luce (1979). Best thinking begins below the neck, because it is grounded in health — in a well nourished, regularly exercised, relaxed body, one that supplies the brain with nutrients, oxygenated blood and the stimuli that come from a variety of physical activities. Through self-training, one can achieve supreme success. It is the privilege of man to achieve greatness, if the individual members know the art of diligently using their own abilities and efficiencies. We must realise we have within ourselves the resources, ability, energy and power of building up a supremely successful life for ourselves and for others in the world. Understanding inner self is the essence for understanding the outer world. One has to develop the self through its own self. The inner self is one’s friend or enemy as its progress depends upon how one treats it. Making the self-friend, acquainting with the self one can achieve supreme success in life asserts Thirumular.

So the education system managers must lead in refining the technique of teaching suitable to Indian culture and find new curriculum technology to develop leadership and produce leaders out of ‘self’-education. Presently there are a few institutions that impart training to the educational managers. There must be number of training colleges for principals where with modern man and material technology, ‘Self’ development technology must be integrated so that they become real leaders to achieve the two fold aims of the education.